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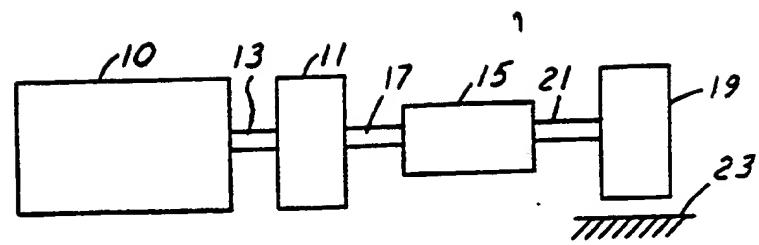


FIG. 1

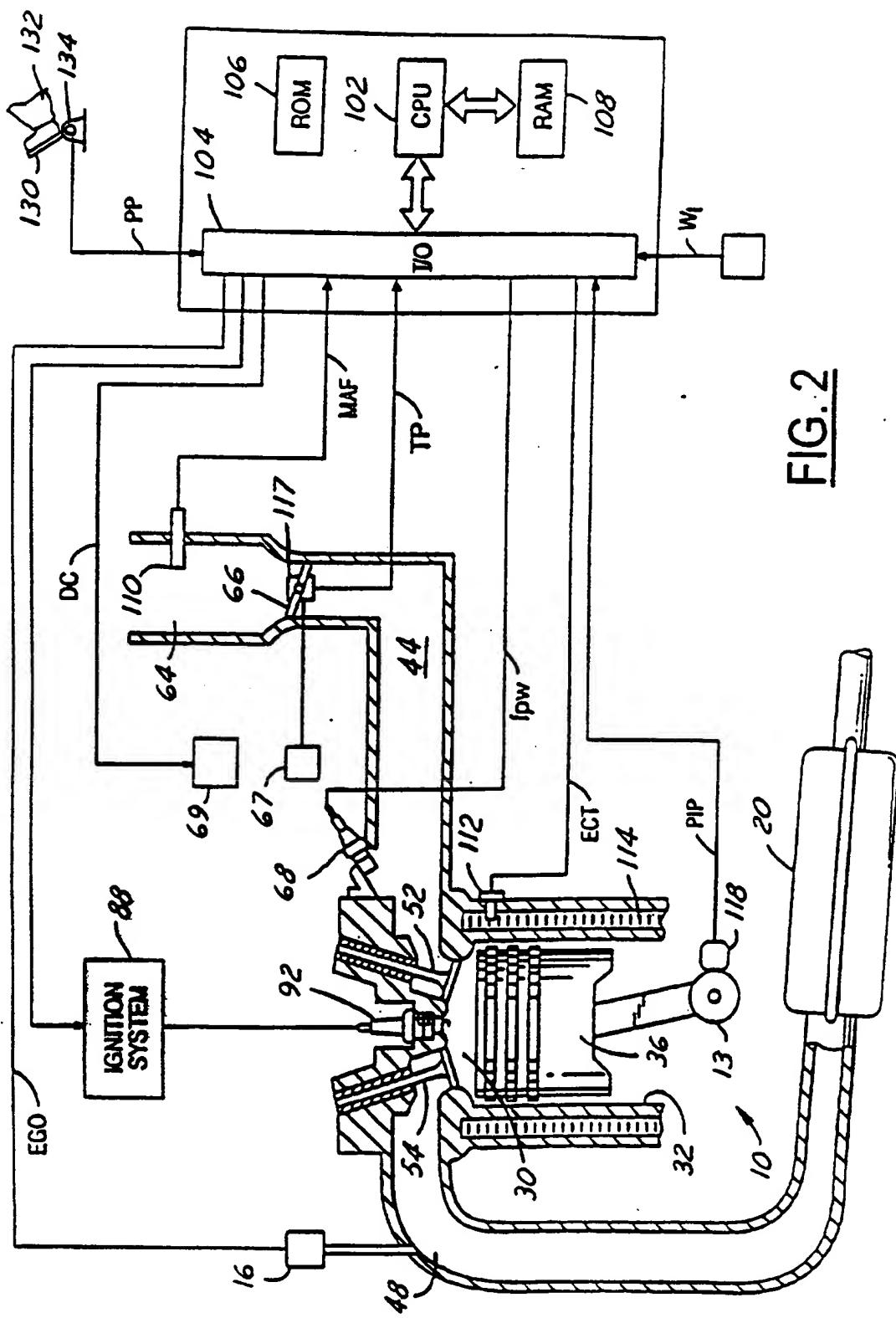


FIG. 2

Start

Arbitrate

Fig 3

calculate driver request

$$tgo\_arb\_req = f(PP, VS)$$

wheel torque

- 310

312 calculate limit output torque ( $tgo\_arb\_lim$ )

calculate driver engine torque

request for manual transmission

and Auto-matic transmission - 314

Neutral or Park ( $tge\_dd\_req$ )

convert driver wheel torque request and limit torque to engine torque requests

$$tge\_arb\_req = tgo\_arb\_req * G1 + Loss$$

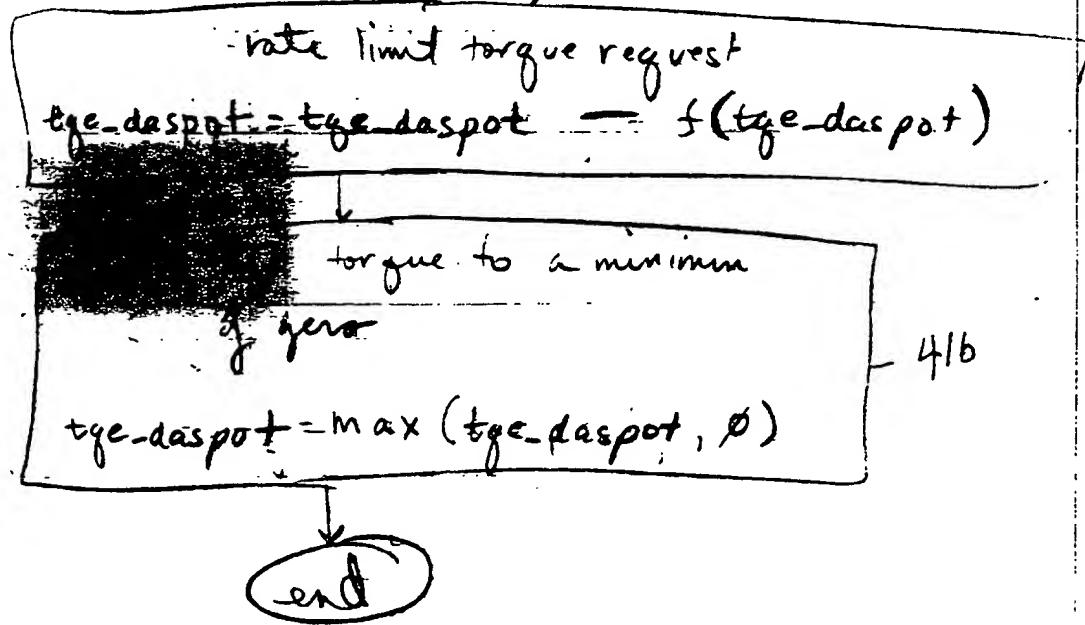
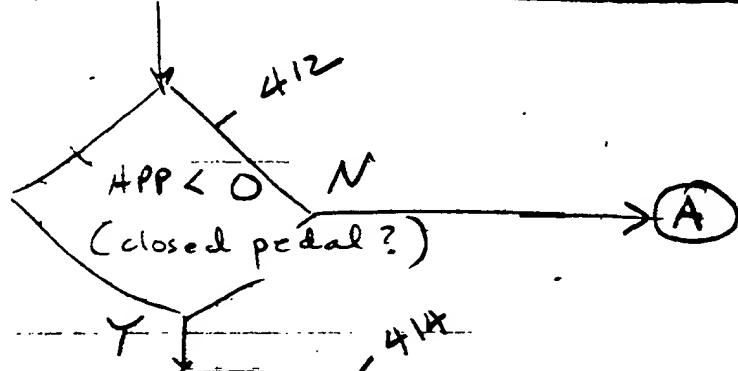
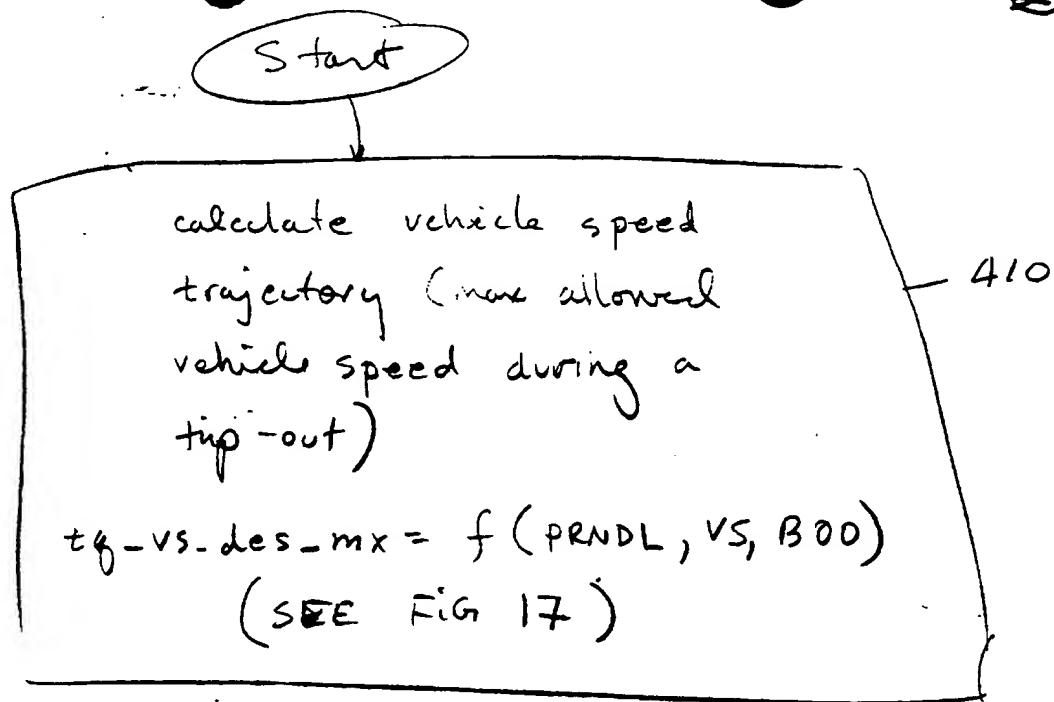
$$tge\_arb\_lim = tgo\_arb\_lim * G1 + Loss$$

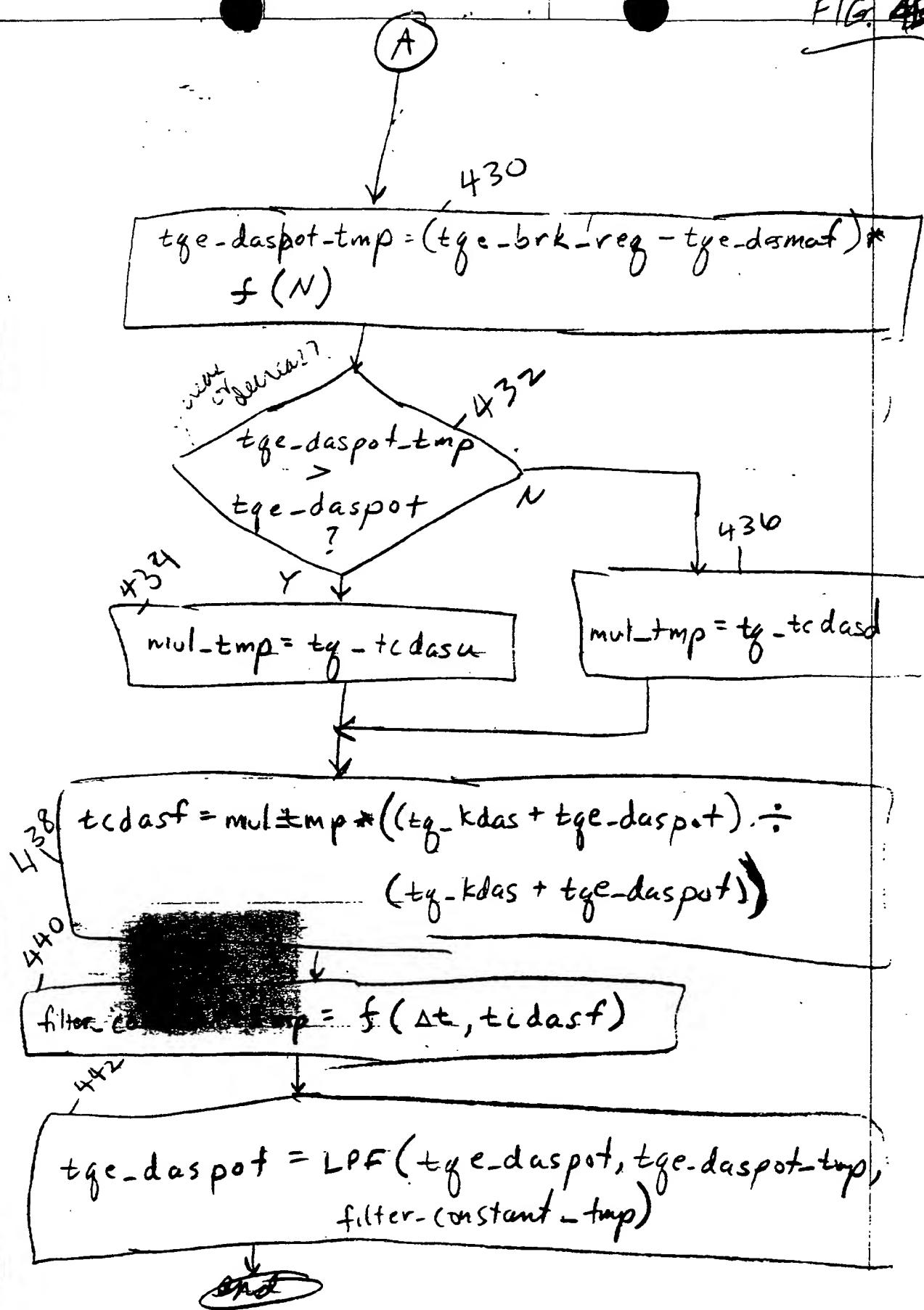
max of

$tge\_dd\_req$  and  $tge\_arb\_req$

$$tge\_arb\_req = \max\{tge\_dd\_req, tge\_arb\_req\}$$

end





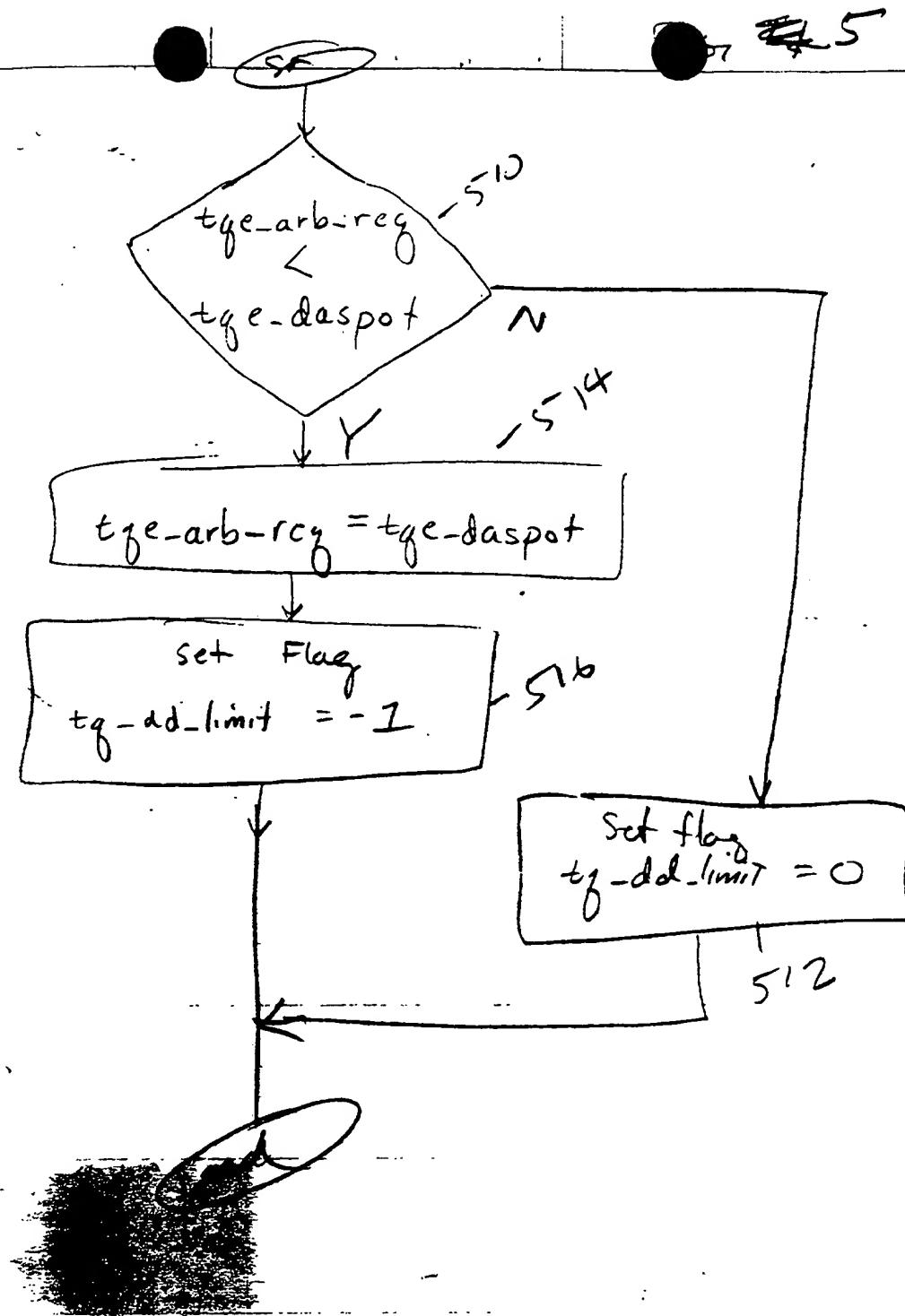
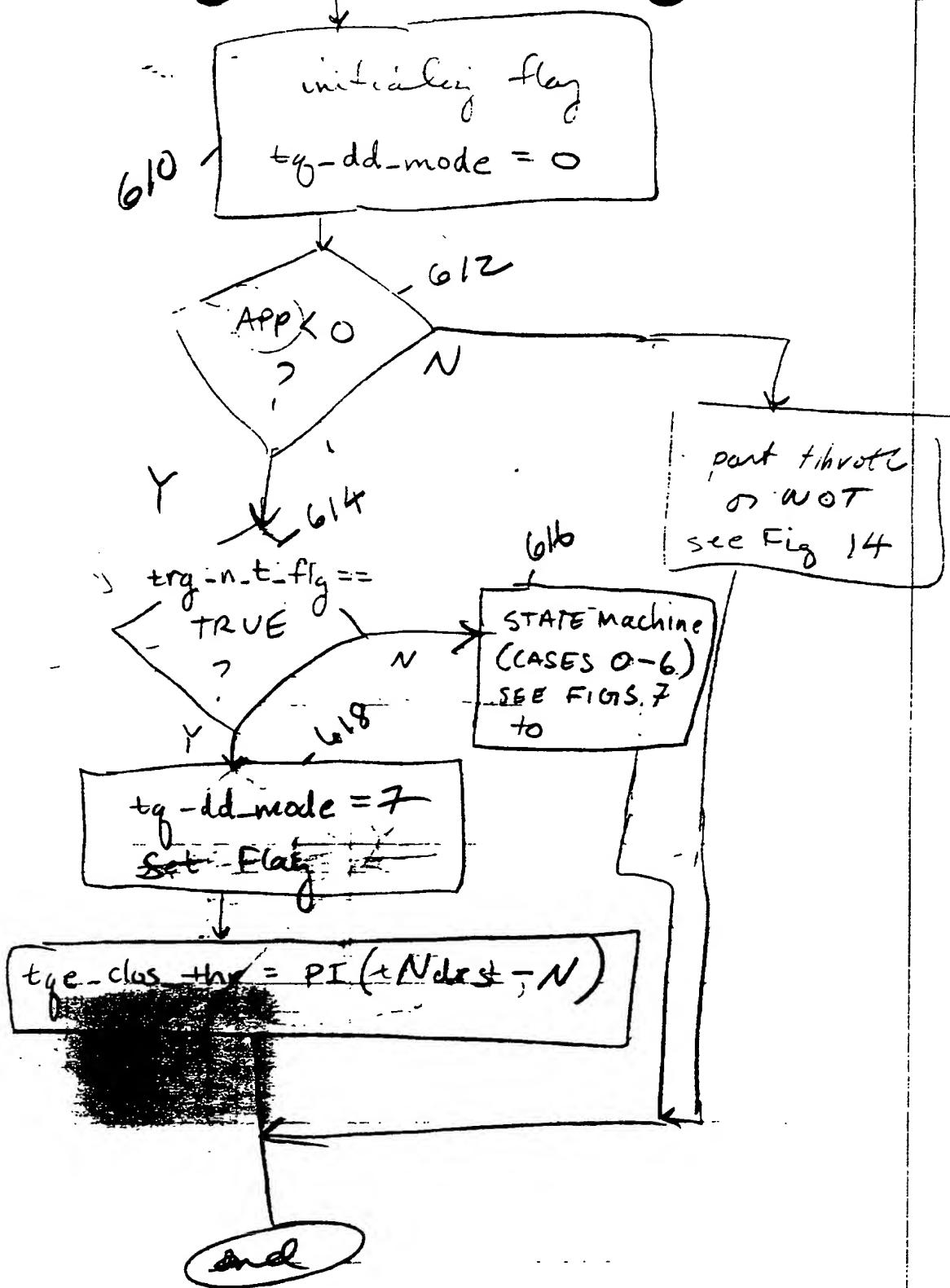


FIG 6



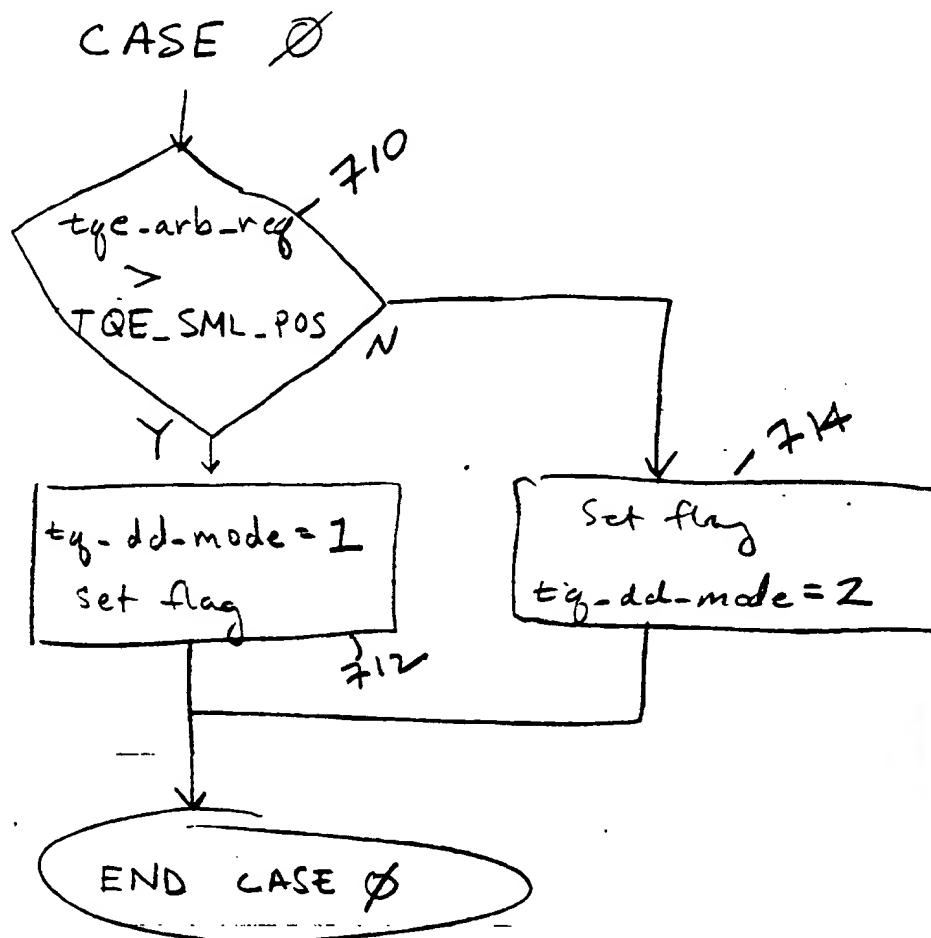


FIG. 8

CASE 1

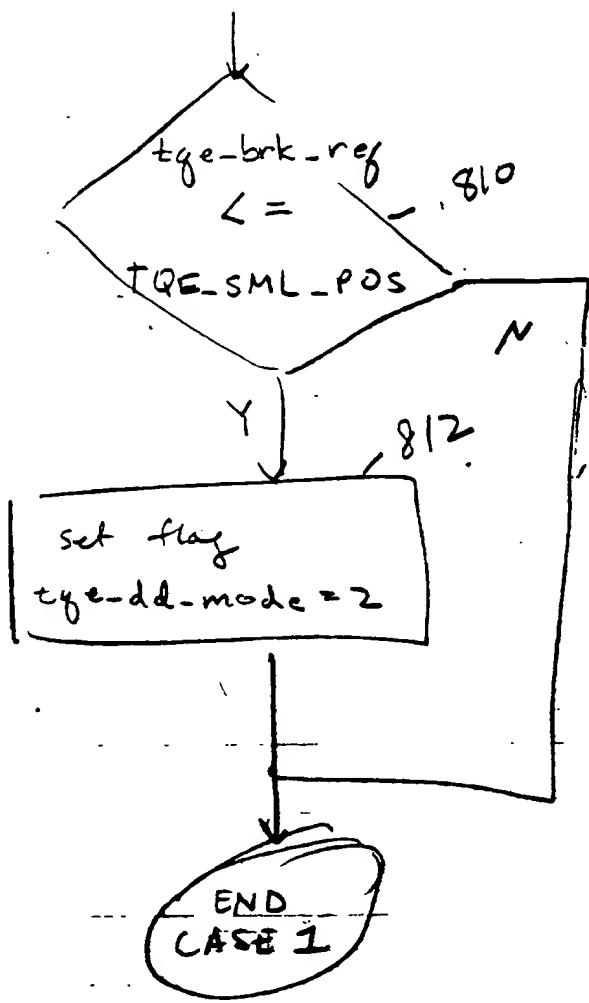


FIG. 9

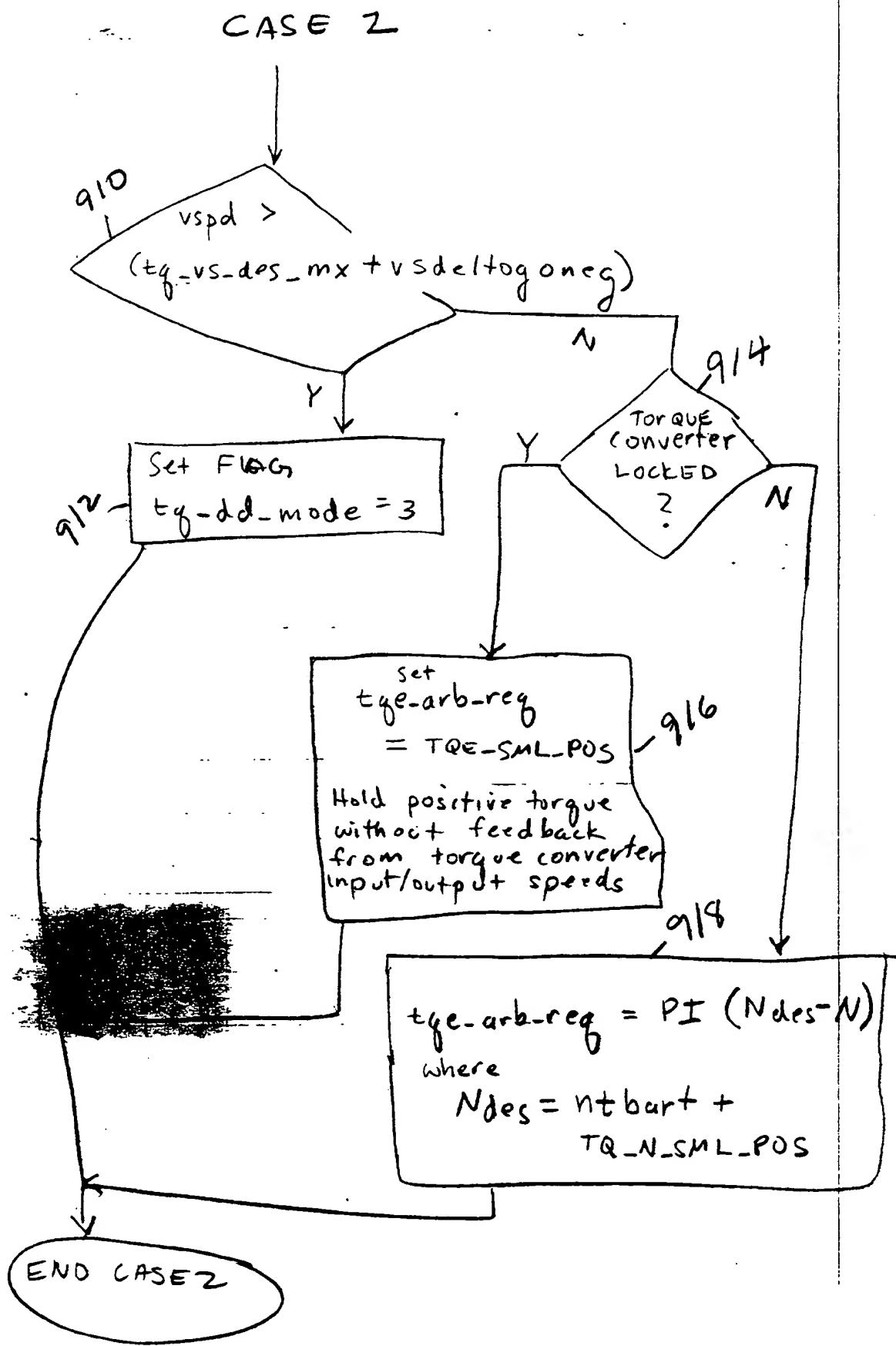


FIG. 10

## CASE 3 ZERO TORQUE CROSSING

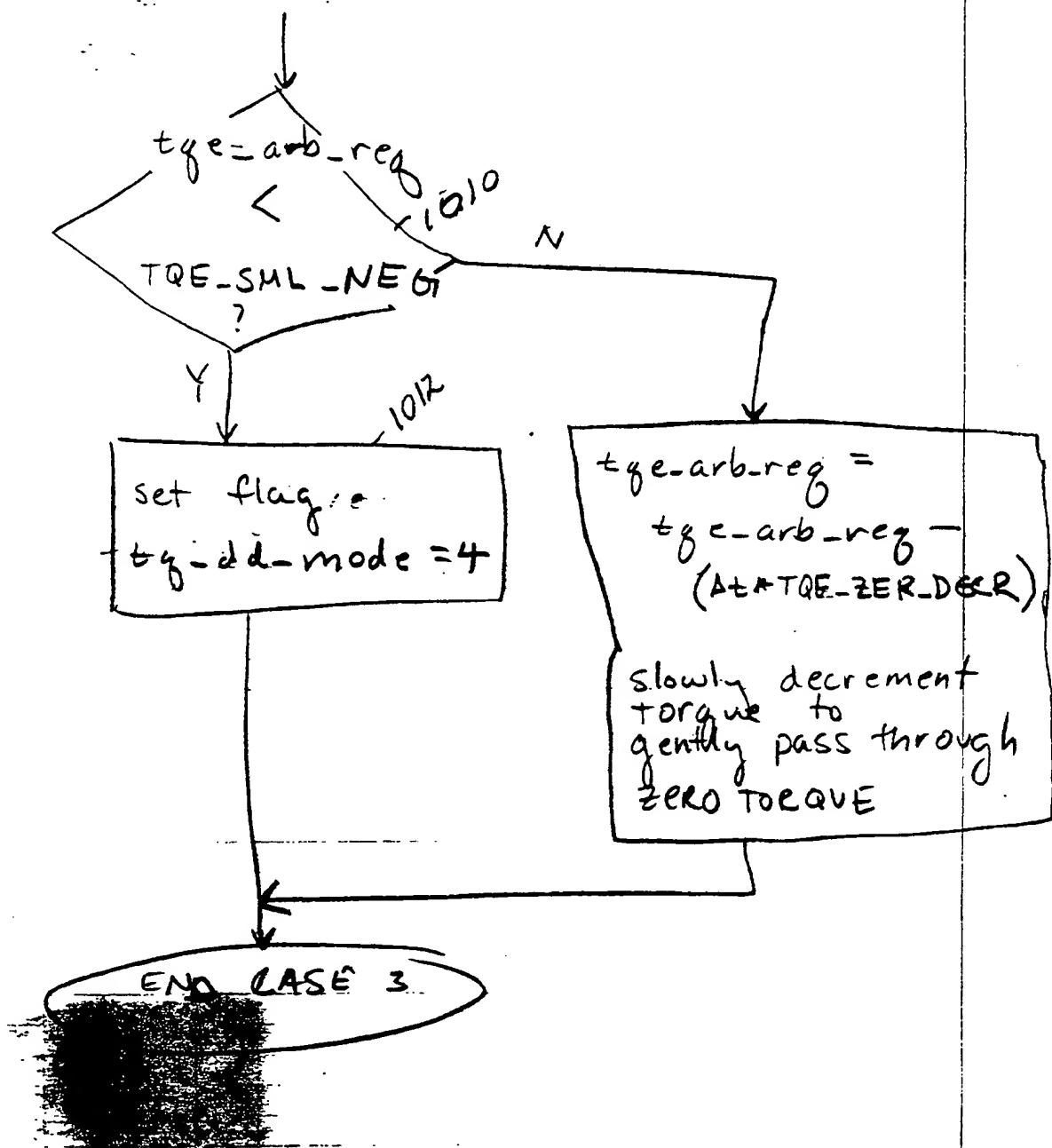


Fig. 11

## CASE 4 Hold Negative Torque

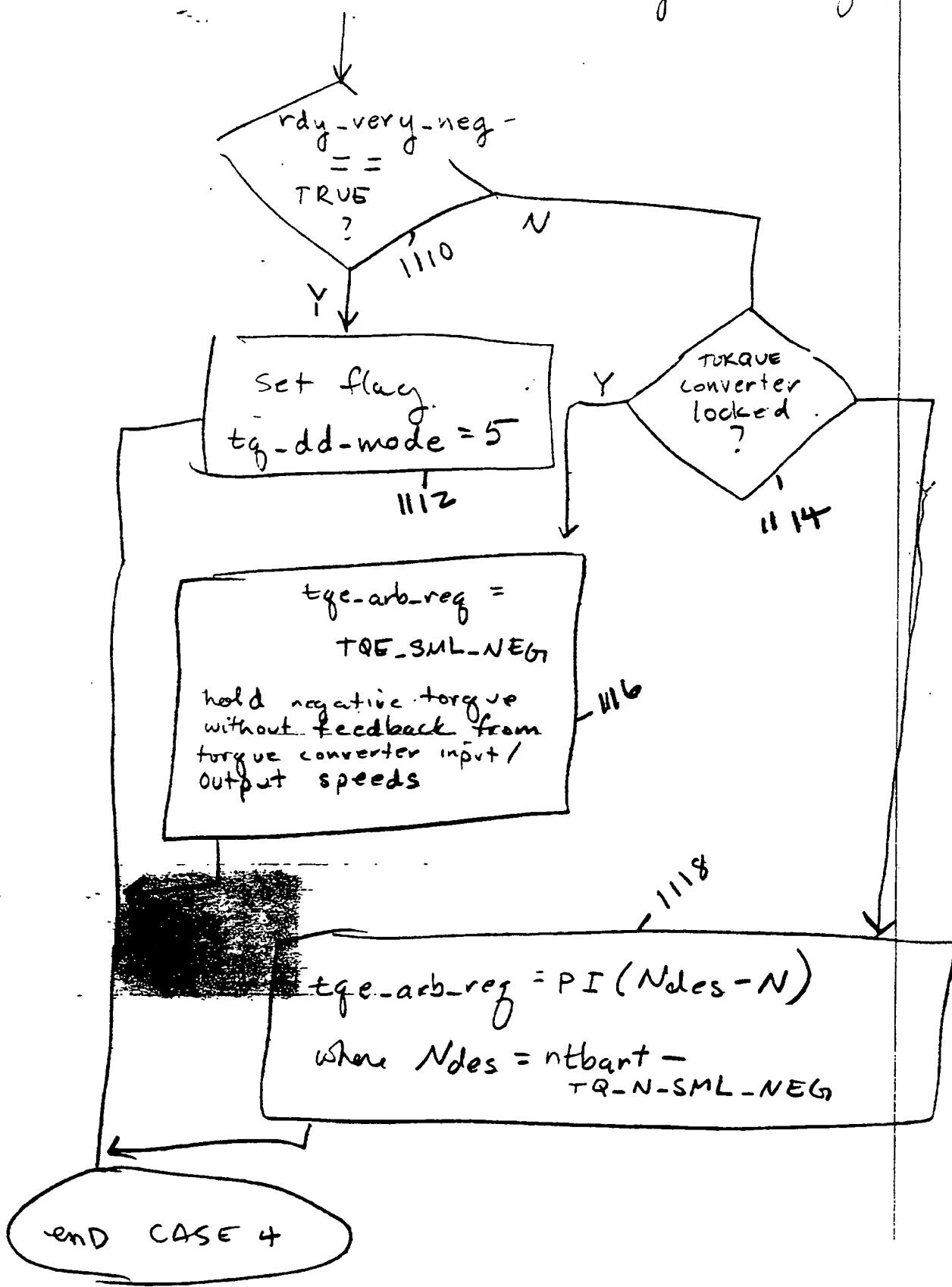


Fig. 12

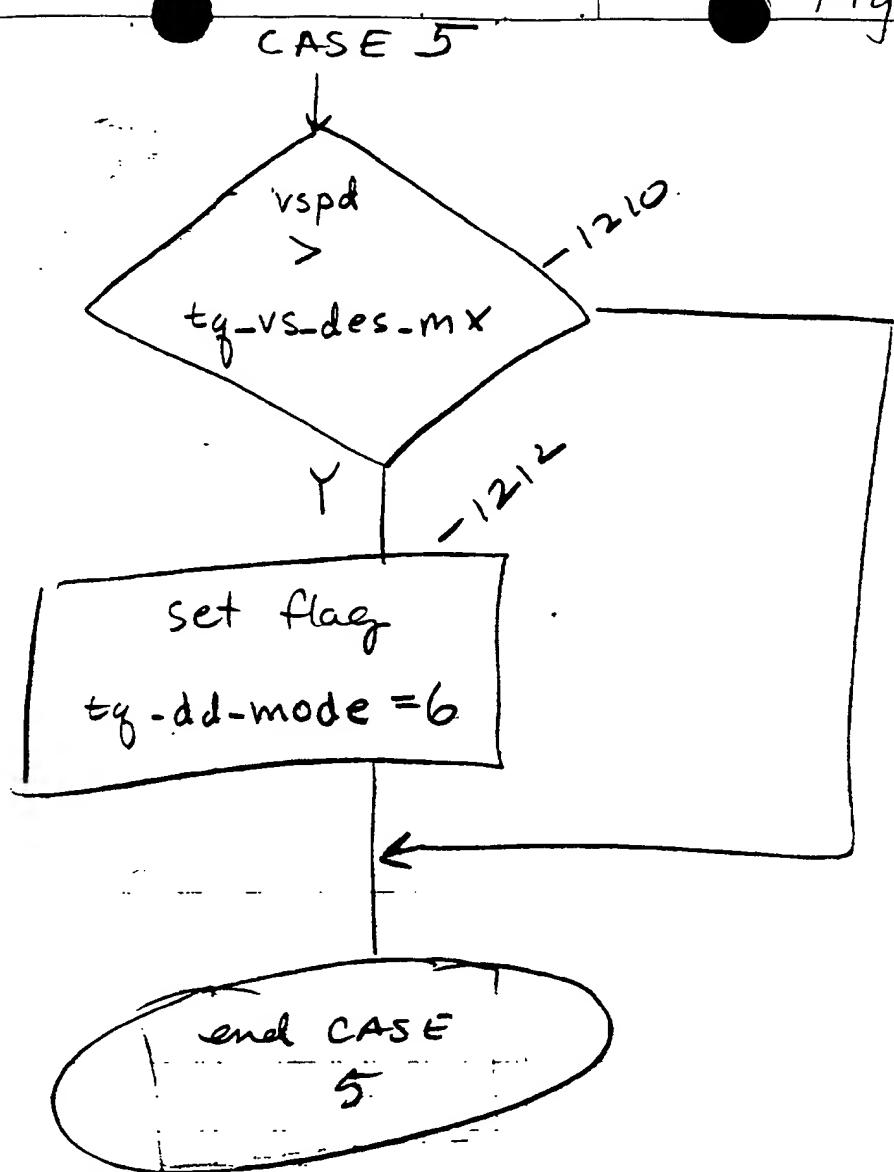


FIG. 13

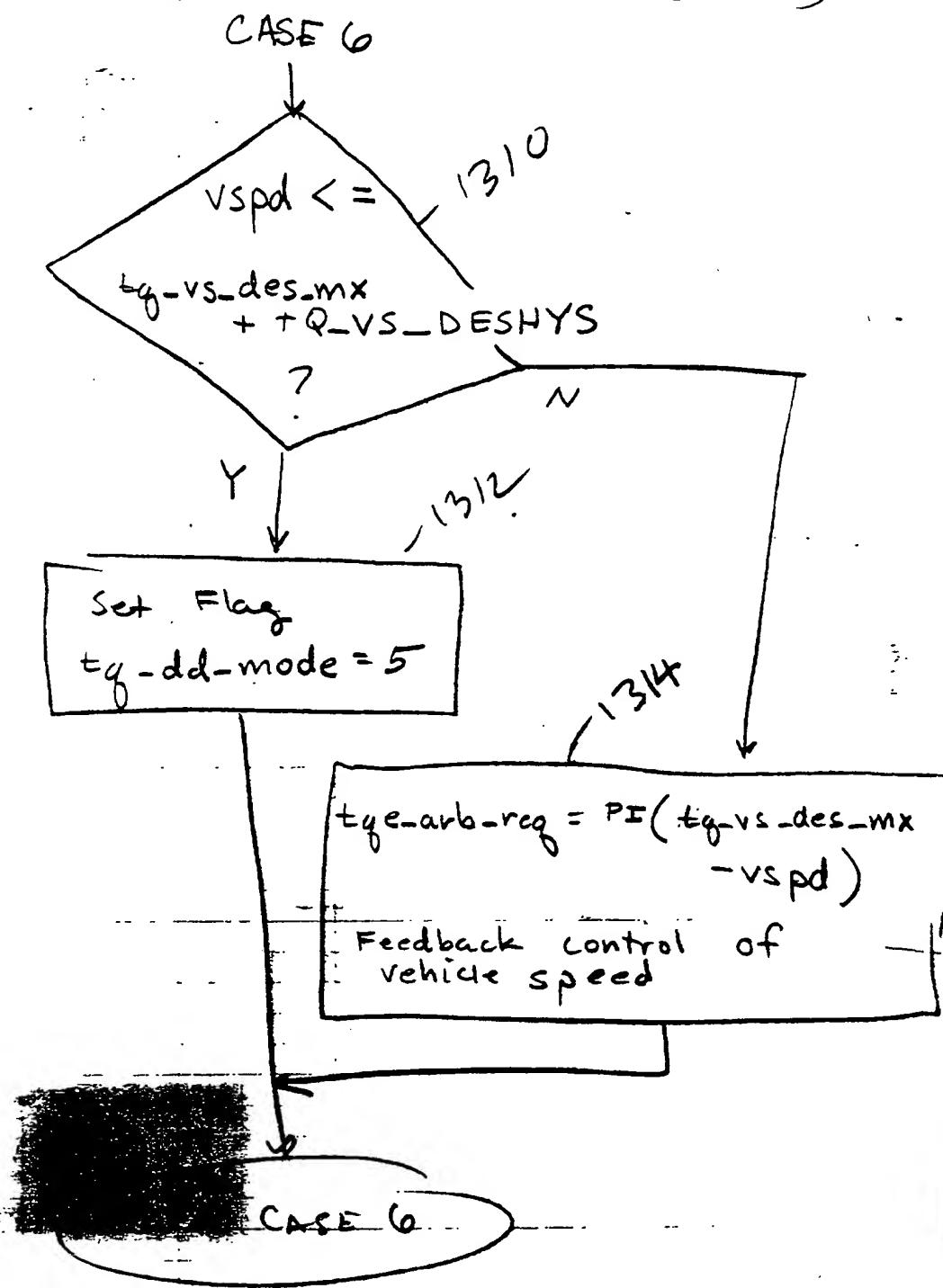


Fig. 14A

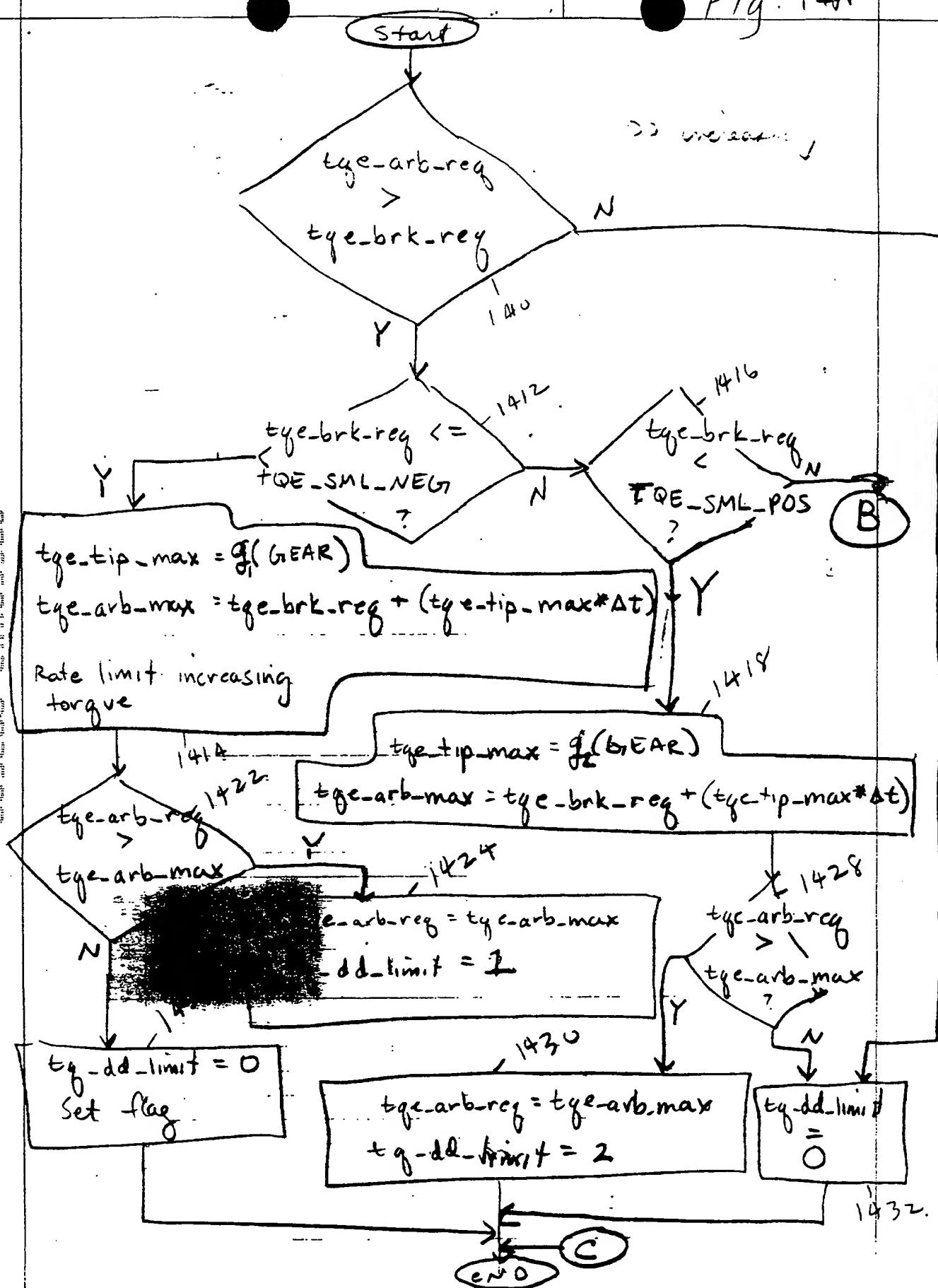


Fig. 14 B

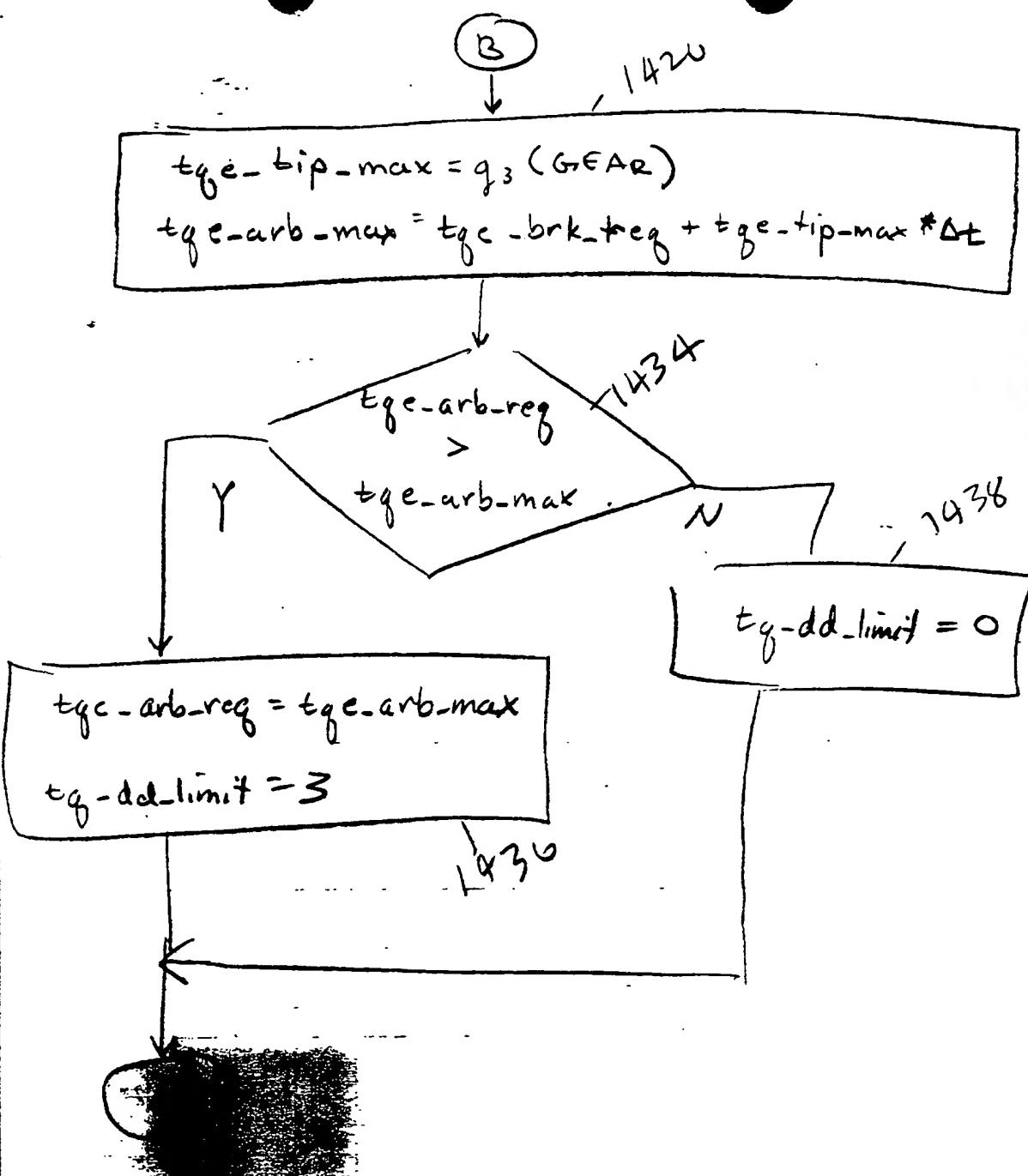


FIG. 15

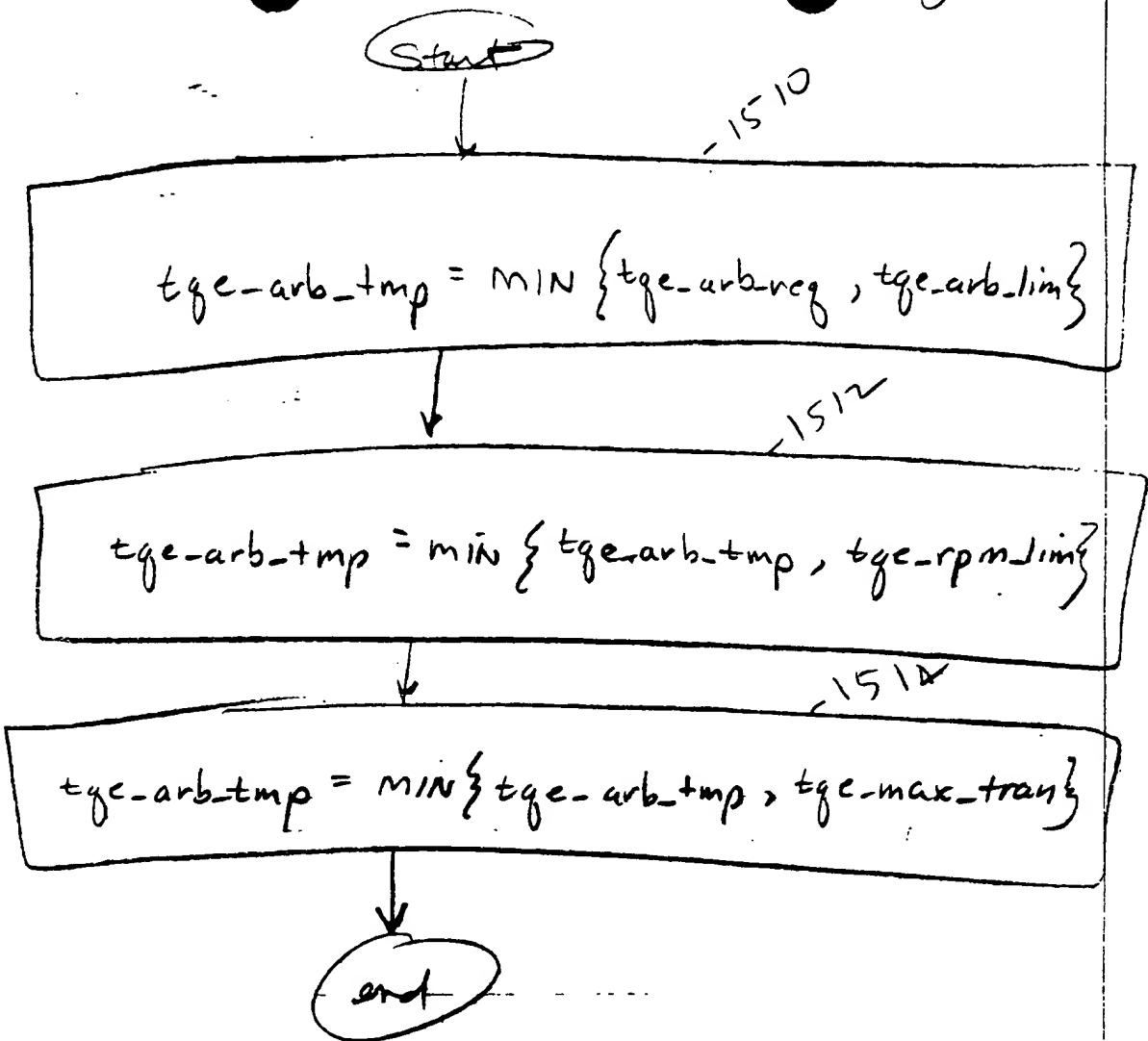


FIG. 16A

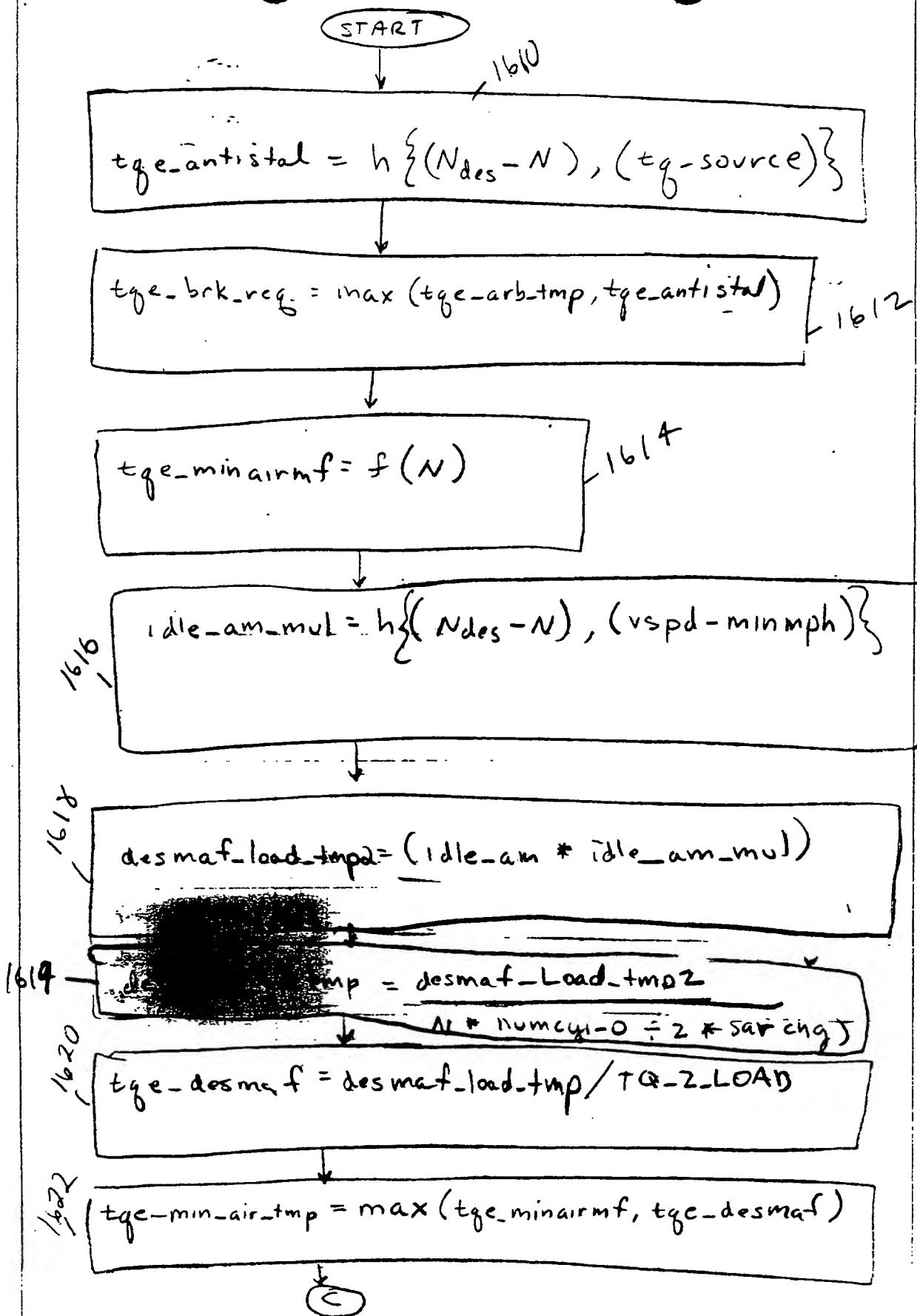
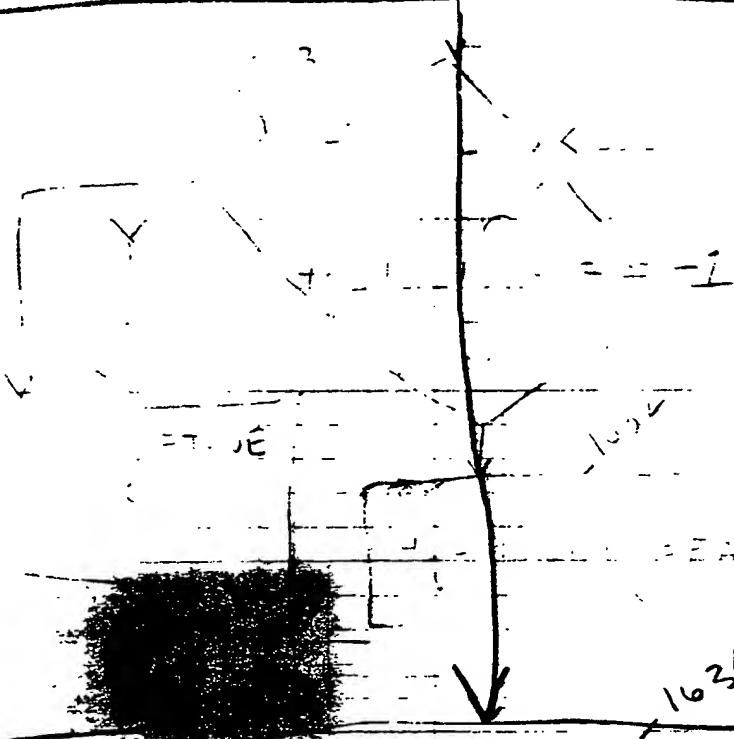


Fig. 16 B



$$\text{desmaf} = \left( \frac{\text{tge-min-air-mp}}{\text{tge-2-load}} \right) * \left( \frac{N * \text{numcyl-0}}{2} * \text{sarchg} \right)$$

Diagram showing a horizontal line with a box containing the equation  $\text{tge-min-air-brk-mp} = \text{tge-min-air-mp} - \text{tge-los}$ .



$$\text{tge-brk-air-} = \text{MAX}(\text{tge-min-air-brk-mp}, \text{tgc-brk-rcg})$$



Fig 16C ~~16C~~

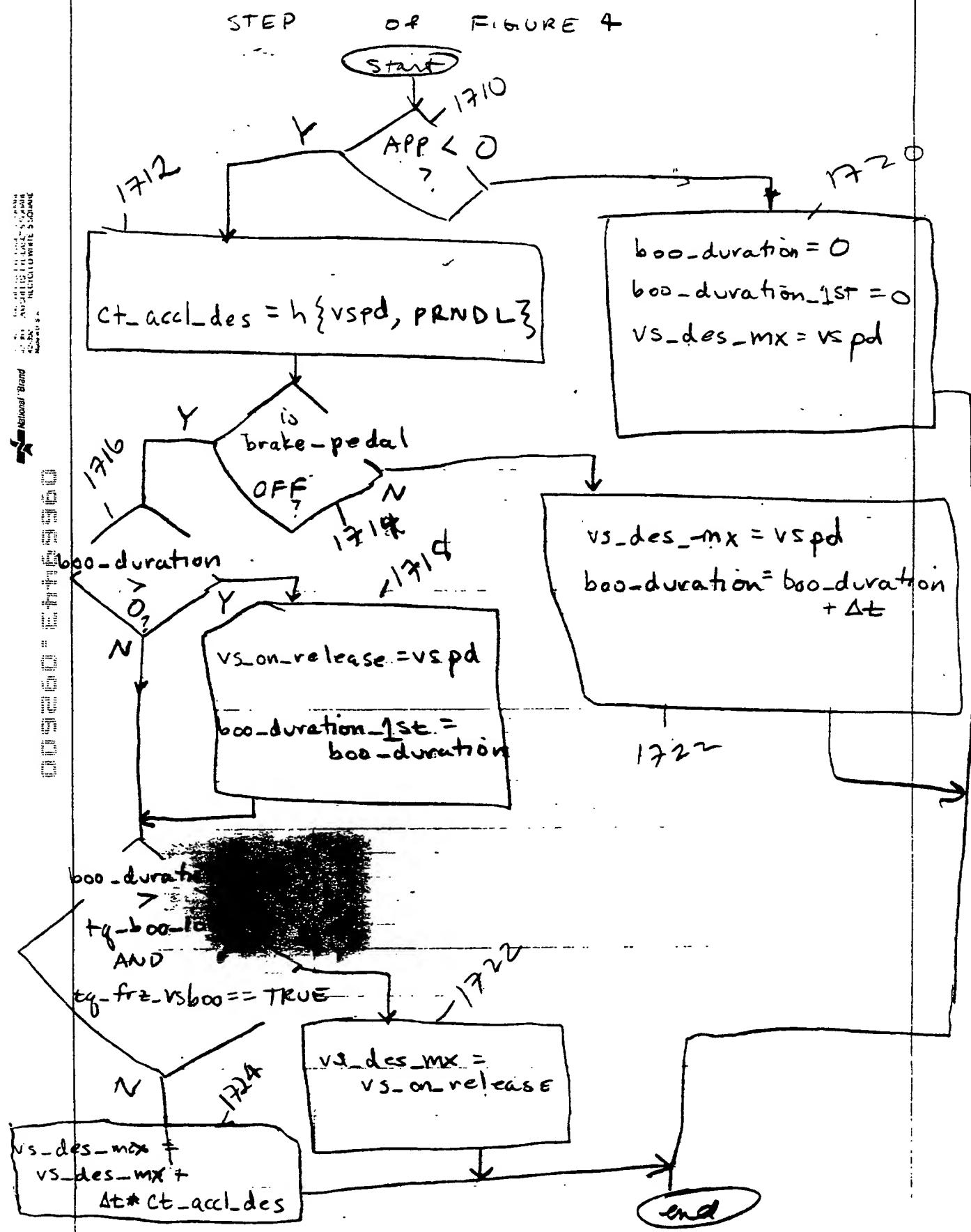
vsph - min mph

	.5	...	0	0
	.6			
	...			0
1	...	6	5	...

$N$  - Nodes



Fig. 17



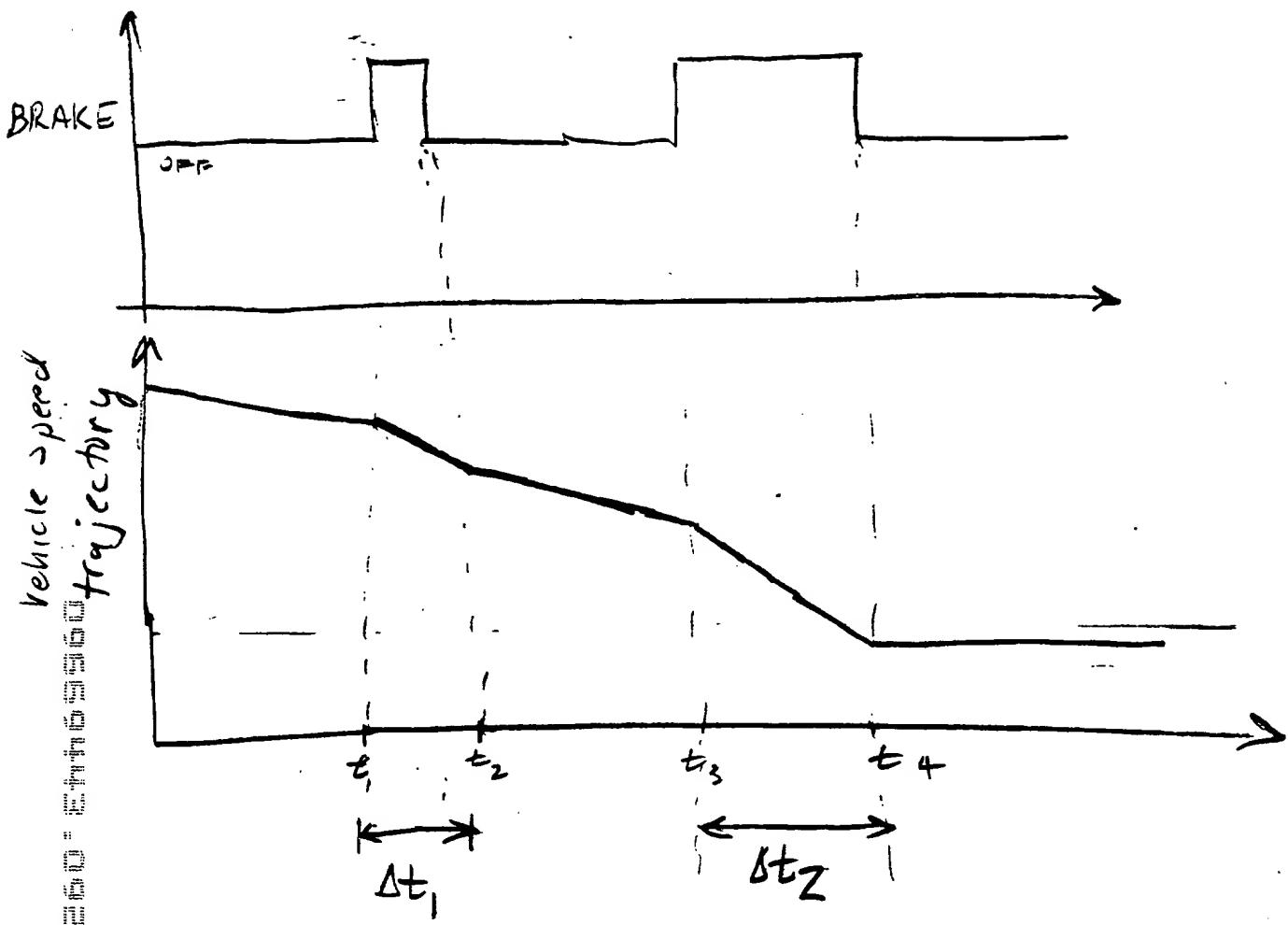
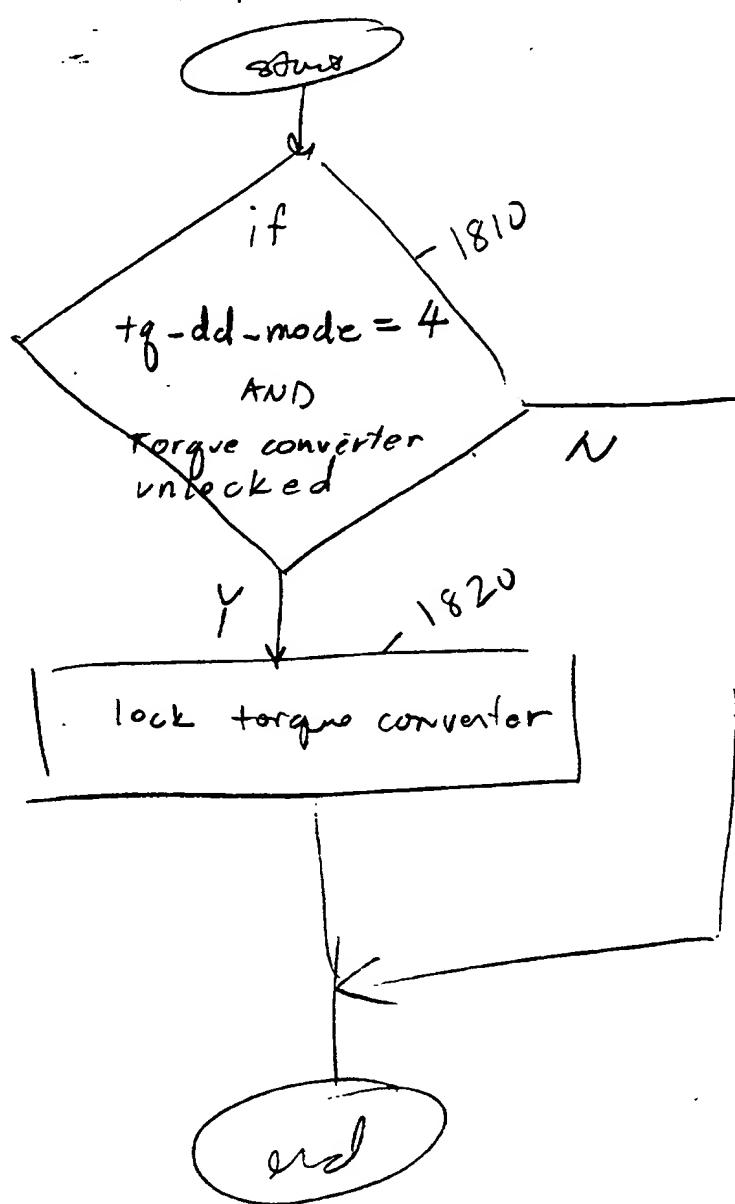
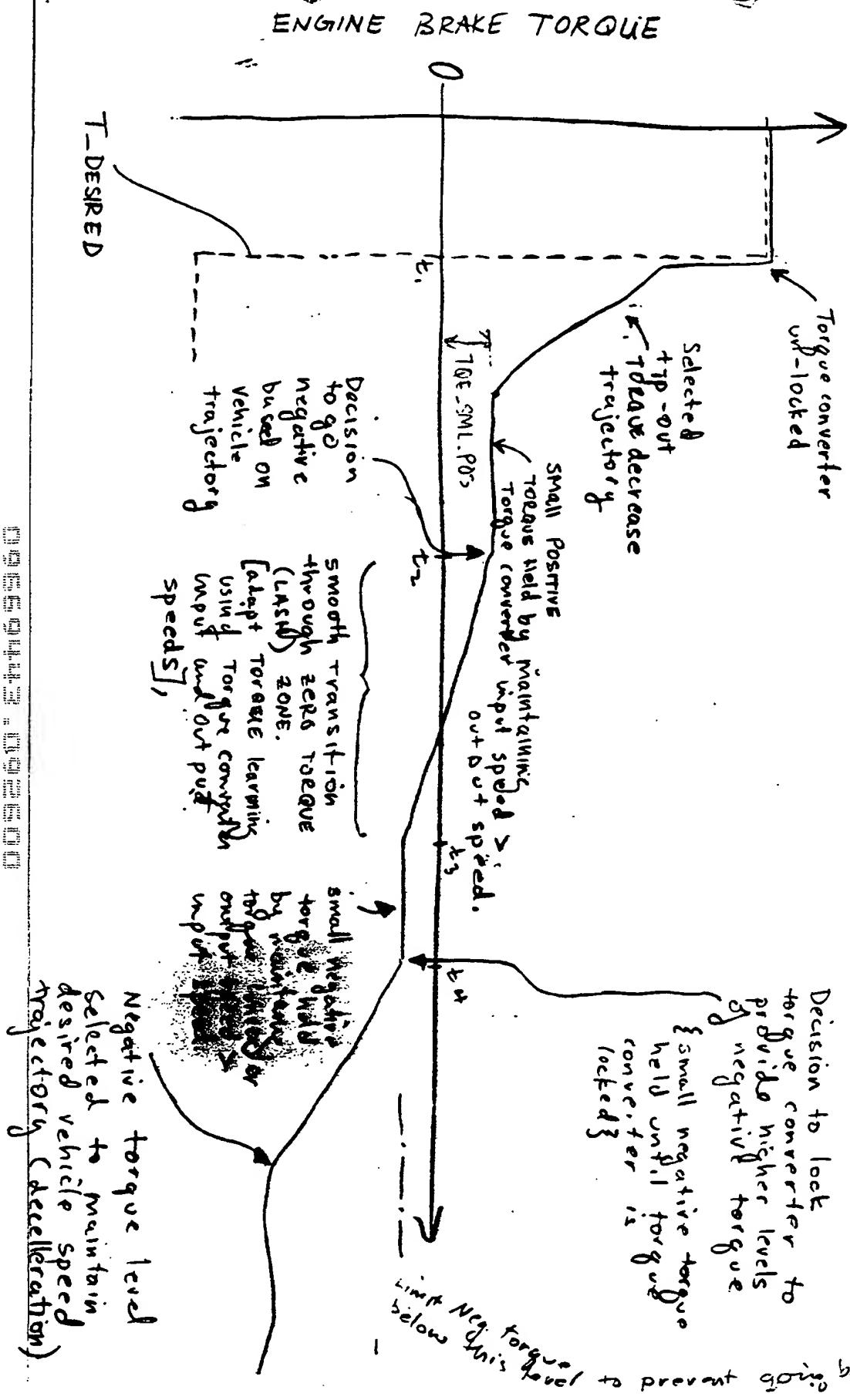


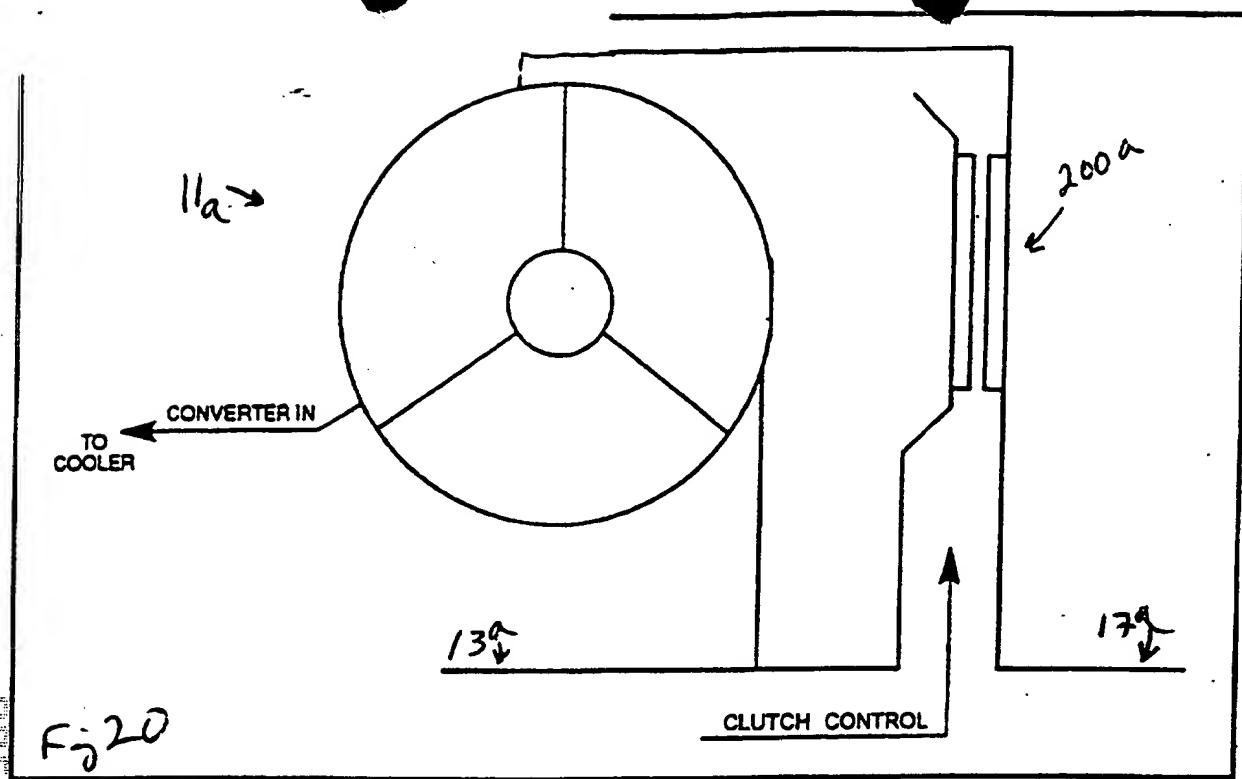
Fig 17B

Fig. 18



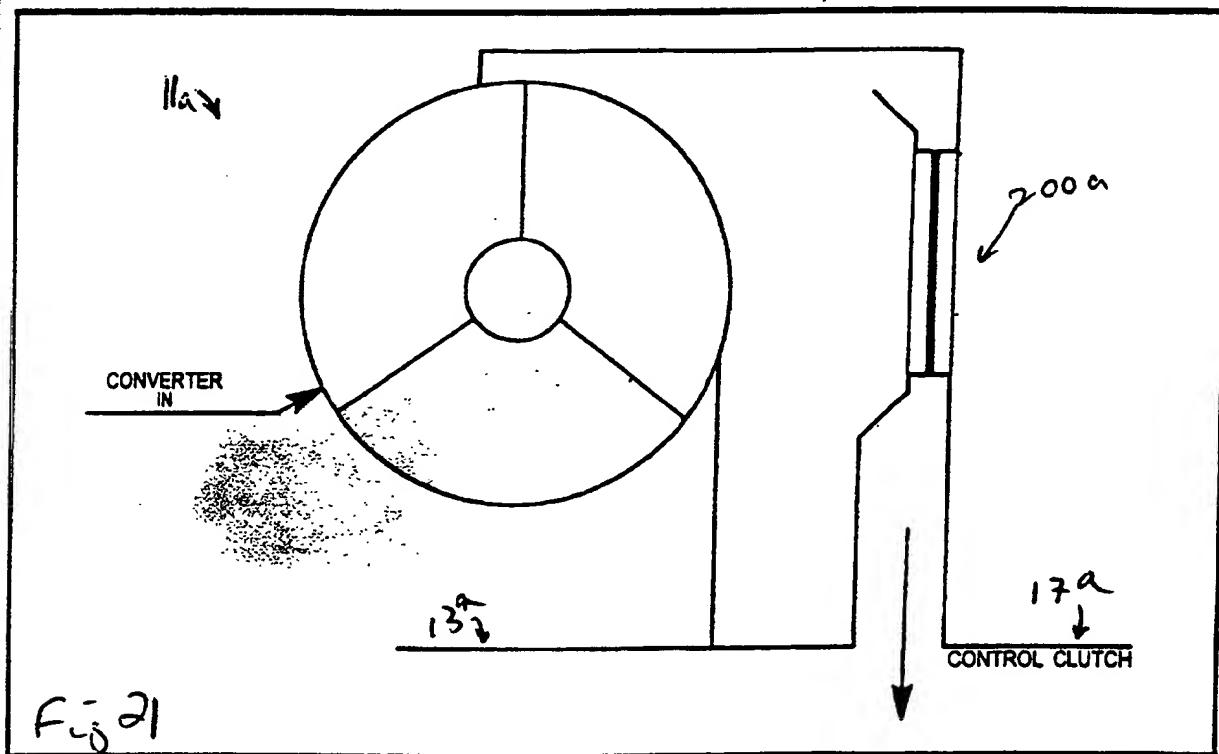
TIP - OUT CONTROL (1)





F-20

Figure 19 - Two-Circuit Unlock Converter Clutch (Disengaged)



F-21

Figure 20 - Two-Circuit Lockup Converter Clutch (Engaged)

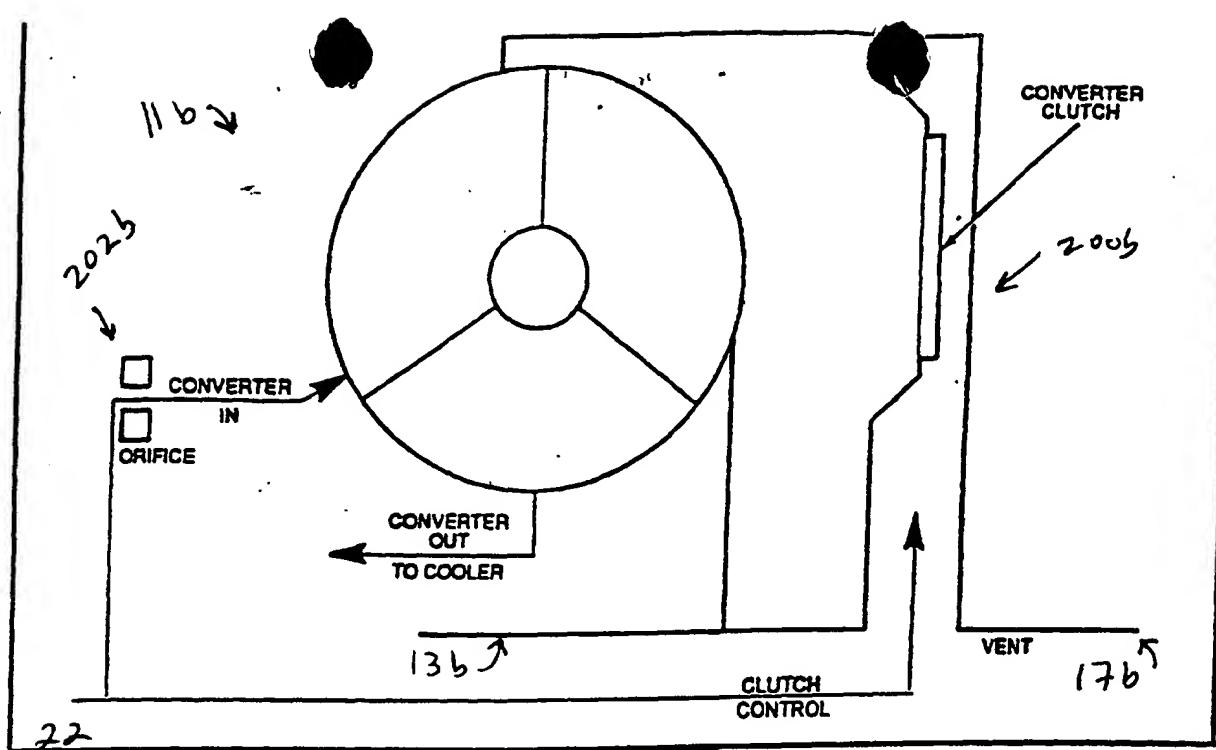


Figure 18 - Three-Circuit Unlock Mode (disengaged)

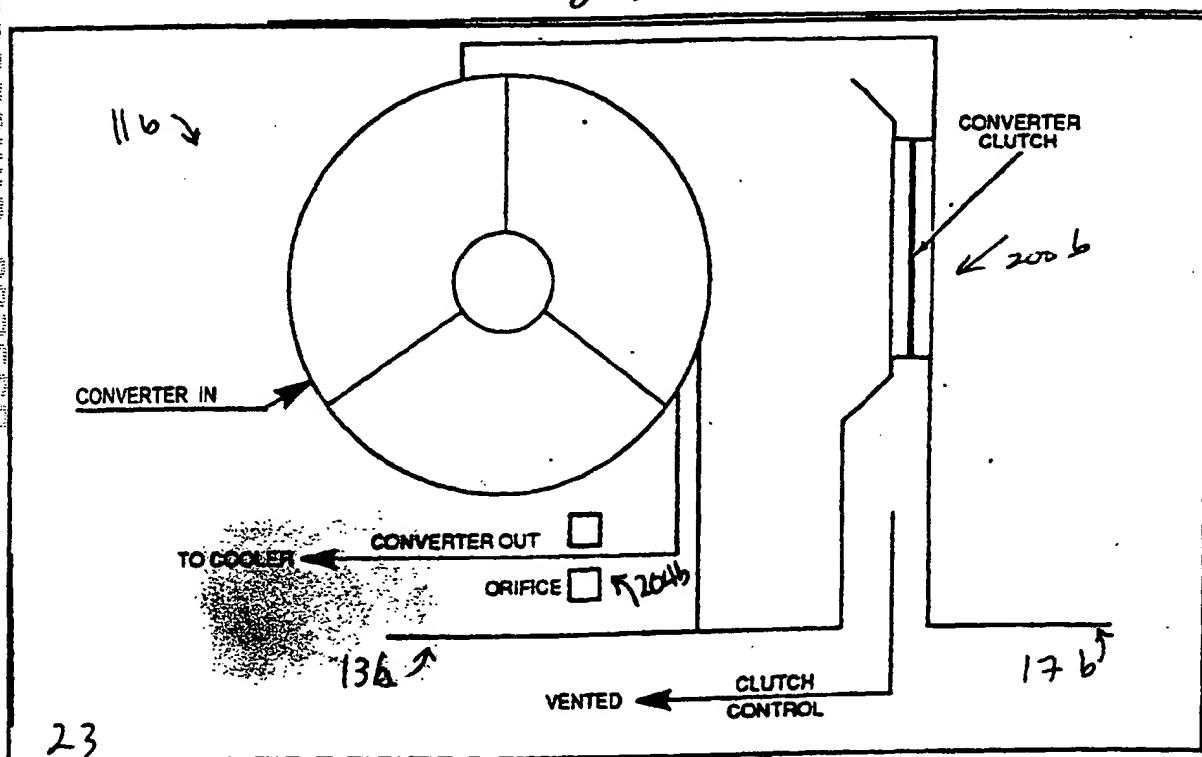


Figure 19 - Three-Circuit Lockup Mode (engaged)